REMARKS / ARGUMENTS

For the convenience of the Examiner and clarity of purpose, Applicant has reprinted the substance of the Office Action in ***10-point bolded and italicized font***. Applicant's arguments immediately follow in regular font.

> ***1. The abstract of the disclosure is objected to because the abstract includes the implied phrases "is disclosed" and "Also disclosed". Correction is required. See MPEP § 608.0 1(b)***

The Abstract has been amended accordingly.

> ***4. Claims 31, 33, 34, 36-38, and 42-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Bixenman et al. (US 6,575,246).***
>
> ***Regarding claims 31, 38, 42, 43, 45. Bixenman et al. discloses a valve system in a well that comprises an isolation string that includes the following features:***
>
> - ***An upper packer 7.***
> - ***An isolation pipe 143 with a operable valve 56 and an object activated valve 50 (it is noted that column 4, lines 4-6 specifically indicates that the above valves can be located anywhere within the gravel packing tool 10 and are not limited to being within the service tool.***
> - ***An object holding service tool (5:45-6:2) coupled to the objected activated valve and adapted to release an object 103 to engage the object activated valve where the object activated valve receives the object from the service tool.***

Applicant respectfully disagrees with the Office's characterization of what Bixenman discloses. For example, the Office characterizes Bixenman's "bypass mechanism 50" as the object activated valve recited in claims 31, 38, 43 and 45. Assuming solely for purposes of argument that Bixenman discloses that the bypass valve 50 can be associated with the isolation

string (as opposed to the service tool), Applicant can find no disclosure or teaching in Bixenman that the bypass valve 50 can be activated by an object released from a service tool. Indeed, Bixenman specifically fails to discuss object activation of the bypass valve 50, even though other devices, such as the cross-over mechanism 154, are disclosed to be activated by an object (i.e. a ball) dropped from the surface. Bixenman discloses that

> The bypass valve 50 is a remotely-operable valve that can be actuated between different positions by a ***remote signal from the well surface*** (e.g., ***an applied hydraulic pressure, an electrical signal, an acoustic signal, an electromagnetic signal, a pressure pulse signal, an optical signal***, and so forth). The bypass valve 50 can be remotely operated without user manipulation of the service tool 14 that includes the bypass valve 50.

Bixenman, Column 4, lines 40-47 (emphasis added).

Thus, Bixenman lacks specific disclosure, express or implied, that the bypass valve 50 can be an object-activated valve and, therefore, the Office cannot make out a *prima facie* case of unpatentably of claims 31, 38, 43 and 45. Reconsideration and withdrawal of these rejections is requested.

Further, the Office characterizes Bixenman's "service tool 14" as the "object holding service tool" recited in claims 31, 38, 42, 43 and 45. However, Applicant can find no disclosure or teaching in Bixenman that the service tool 14 is adapted to hold and release an object to activate a valve associated with the isolation string (i.e., not associated with the service tool). Indeed, the only discussions or teachings in Bixenman concerning "objects" specifically relate to a ball being dropped from the surface. For example, the Office contends that the following disclosure from Bixenman establishes that the service tool 14 can hold and release an object:

> As shown in FIG. 3A, ***the upper end of the service tool 14*** includes a connection member 102 for connecting the service tool 14 to the tubing string 8. In FIG. 3A, a collet 104 is shown in a squeezed position. An upper portion 107 of the collet 104 is attached to a housing member 108 by a shear element 106 (e.g., a shear pin, a shear screw, etc.). Although referred to in the singular, a "shear element" is intended to cover plural shear elements.
>
> A ball seat 110 is defined by the upper portion 107 of the collet 104, ***which ball seat 110 is adapted to receive a ball*** (not shown in FIG. 3A) ***dropped from the well surface through the tubing string 8.*** The housing member 108 provides an inner profile 112 to receive the upper portion 107 of the collet 104 once the collet portion 107 collapses after it has been pushed downwardly by increased pressure against the ball received in the ball seat 110 (discussed below).
>
> The lower portion of the collet 104 is connected to a sleeve 114 that is slidably arranged inside the housing member 108. In the position shown in FIG. 3A, the sleeve 114 covers a radial port 115 leading to a longitudinal conduit 116 in the housing member 108. Seals 117 are provided on the sleeve 114 to seal around the port 115 when the sleeve 114 is in the illustrated position of FIG. 3A.

Bixenman, Column 5, line 42 – Column 6, line 2 (emphasis added). Bixenman further discloses that:

> To set the packer 7, a ball 103 (FIG. 4C) is dropped down the tubing 8 into the gravel pack tool assembly 10. ***The ball 103 is received by the ball seat 110*** defined by the upper portion 107 of the collet 104 (FIG. 3A). Note that at this point the collet 104 is in its squeezed position, which prevents the ball 103 from dropping further into the gravel pack tool assembly 10.
>
> Pressure is increased in the tubing string 8 to set the packer 7. The pressure in the tubing string 8 is increased to some predetermined pressure level over the hydrostatic pressure in the wellbore 1 at the depth of the gravel pack tool assembly 10. The increase in pressure is applied against the ball 103 that is sitting in the ball seat 110 of the collet 104. When the applied pressure is high enough, the shear element 106 is sheared, causing the collet 104 to be moved downwardly by the pressure against the ball 103. Thus, as shown in FIG. 4A, the collet 104 has moved to its down position, where the collet 104 collapses and its upper portion 107 is snapped into the recess 112 provided in the housing member 108. ***Once the collet 104 is in its collapsed position, the ball seat 110 disappears (FIG. 4A) and the ball 103 is allowed to drop further into the gravel pack tool assembly 10. As***

> ***shown in FIG. 4C, the ball 103 falls into the ball seat 156.*** The ball 103 prevents fluid communication to the lower portion of the gravel pack tool assembly 10 through the service tool inner bore 101.

Bixenman, Column 7, line 66 – Column 8, line 24 (emphasis added).

Applicant respectfully submits that all Bixenman discloses is that the ***service tool 14*** has a ball ***seat*** 110 that can receive an ***object*** (i.e., ball) ***dropped from the surface***. Pressure is thereafter applied to this ball/seat combination to set the packer. Additional pressure causes this seat 110 to shear loose and retract, thereby permitting the ball to drop to ball seat 156, which covers cross-over ports 158. To the extent the Office considers the ball seat 156 and cross-over ports 158 to comprise an object-activated valve, Bixenman only discloses this valve (i.e., cross-over mechanism 154, Column 6, line 66 – Column 7, line 8) to be associated with the ***service tool.*** Bixenman never discloses or suggests that the cross-over mechanism 154 can be associated with the isolation string.

Thus, without such specific disclosure, express or implied, the Office cannot make out a *prima facie* case of unpatentability of claims 31, 38, 42, 43 and 45. Reconsideration and withdrawal of these rejections is requested.

> ***Regarding claims 33, 36-38: The object holding service tool includes a sleeve 128 having a bore in which the object is slidably and sealingly engaged. The tool is adapted to slidably release the object with sufficient pressure applied to the object to cause a restraining device holding the object to release the object.***

Claim 33 depends from claim 31 discussed above and is patentable over Bixenamn for at least the same reasons. Reconsideration and withdrawal of this rejection is requested.

Claim 36 is directed to an object holding service tool to actuate a downhole valve, which

valve is unassociated with the service tool. For at least the reasons discussed above, claim 36 is patentable over Bixenman. Dependent claims 37 and 38 are similarly patentable.

Regarding claims 31, 46: The object activated valve includes the following features:

- ***A tube 159 having at least one opening 158.***
- ***A sleeve 152 having at least one other opening and being movably connected to said tube, wherein the at least one opening and the at least one other opening are adjacent in an open configuration and nonadjacent in a closed configuration.***
- ***An object seat 156 in mechanical communication with said sleeve, wherein said seat receives an object 103 for manipulating the valve between the open and closed configurations.***

Regarding claims 34, 44, 47: The object activated valve includes a piston 148 coupled to the sleeve.

Applicant respectfully disagrees with the Office's characterization of Bixenman's bypass valve 50 as an object-activated valve. As discussed above, there is no teaching or disclosure in Bixenman that the bypass valve 50 is actuatable by an object, let alone an object released by the service tool 14. In Applicant's understanding of Bixenman, the structures identified by the Office (i.e., cross-over port body 159, seat 156) are not associated with the bypass valve 50, but rather are associated with the cross-over mechanism 154. Even if full credence is given to the Office's reliance on Bixenman's statement (Column 4, lines, 3 – 6) that:

> the bypass mechanism 50, conduit 52, and valve 56 are part of the service tool 14. Alternatively, the components can be part of different portions of the tool assembly 10

so that the bypass valve 50 is associated with the isolation string, Bixenman's cross-over mechanism 154 and associated structures (i.e., cross-over port body 159, seat 156 and ports 158) are disclosed to always reside in the service tool 14.

Thus, Applicant fundamentally disagrees with the Office's understanding of what Bixenman teaches and discloses concerning the bypass valve 50: ***it is not an object activated valve***. Reconsideration and withdrawal of these rejections is requested.

5. Claims 1-30, 40, and 41 are allowed.

Applicant thanks the Examiner for the favorable consideration given to these claims.

6. Claims 32 and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant thanks the Examiner for the favorable consideration given to these claims. However, Applicant elects at this time not to re-present these claims in independent form in favor of the arguments presented above with respect to claims 31 and 38.

Response to Arguments

7. In view of applicant's amendment, the objections to the drawings, specification, and claims have been withdrawn. The original objection to the abstract has also been withdrawn however the amendment made thereto has created the new objection given above.

Applicant has conformed the Abstract to the Examiner's instructions

8. Applicant's arguments, filed March 30th, 2006, with respect to the rejection(s) of the claim(s) under 25 USC 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in

view of Bixenman et al.; it is noted that Bixenman et al. has been reinterpreted and applied to the claims differently.

CONCLUSION

Claims 1 – 34 and 36 – 47 are currently pending in this application; claims 1 – 30, 40 and 41 have been allowed; claims 31, 33, 34, 36 – 38 and 42 – 47 have been rejected; and claims 32 and 39 have been objected to.

No claims have been amended in response to the rejections or objections, and Applicant submits that each claim presented herein is patentable. A timely notice of allowance is respectfully requested.

The Commissioner is authorized to charge to deposit account 12-1322/020569-05006 any fee that may be necessary to make this and related papers, if any, timely and effective.

Applicant thanks the Examiner for her consideration and effort on this file. If there are any questions or if additional information is needed, the Examiner is invited to telephone or email the undersigned.

Respectfully submitted,

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P802-1242D-US